COEN 241 HW 0 (10 pts)

Unix shell and `git`

For this HW 0 you can choose whichever operating system suits you better, but we prefer a Linux or a Mac OS with a terminal.

HW objectives

1. To ensure all students understand how to gain basic proficiency with the Unix shell.
2. To ensure all students have at least basic proficiency in using the `git` version management tool.
3. To get you ready to start the project for this course.

What to submit?

1. Answers to the following questions (2.5 pts each)
    a. How much of the lessons for each part were you able to finish?
    b. Which lesson materials did you already know?
    c. Which lesson materials did you not know previously?
    d. Did you find HW 0 useful, and if so, how was it useful?

Software Carpentry

We link to Software Carpentry material both for Unix shell and `git` teaching within this lab. For some more context, as stated online: “Software Carpentry is a volunteer project dedicated to teaching basic computing skills to researchers”. All of the Software Carpentry lessons are open source and freely available at at https://software-carpentry.org/

Part 1 - Proficiency with Unix shell

For students unfamiliar with the Linux environment, we provide two resources that you can work through:

- a reference to the Linux Intro located here
- a reference to the Software Carpentry Unix shell lesson located in http://swcarpentry.github.io/shell-novice/ You should aim to be comfortable with all of the seven episodes of that lesson.

Part 2 - Gaining git proficiency

All students in COEN 241 are expected to use the `git` version control system to create and manage your own repositories, and to clone, collaborate on others' repositories and to submit the code for the final project!

Resource-A: Software Carpentry git lesson

The Software Carpentry git lesson is targeted at learners with less technical confidence, however we believe that this will just mean that you should be able to progress rapidly through the lesson material.

The git lesson available at http://swcarpentry.github.io/git-novice/

You should cover the material **up to and including episode 9 "Conflicts".** The material is presented so that you can progress non-linearly, and you can choose whether or not you want to complete all of the exercises included on the lesson's pages.

Resource-B: Learn git branching

These exercises are targeted at those who already have some familiarity with `git`. If you are completely new to `git` we recommend starting with the Software Carpentry lesson (above).

"Learn Git Branching" treats its `git` exercises rather like a puzzle game. It is accessed through an interactive website, combining a pseudo-shell input on the left, and a

visualisation of the `git` repository on the right. **NB:** The traffic-light buttons on the pretend windows are purely decorative.

They are available at https://learngitbranching.js.org/

You should try to complete the first ten “Main” levels (the “Introduction Sequence”, “Ramping Up”, and “Moving Work Around” sections), and the first seven “Remote” levels (the “Push & Pull – Git Remotes!” section). They do not have to be completed in order.

You can change level at any time by entering the command `levels` into the interpreter. Help is available via the `help` command.